

INCREASINGLY SOPHISTICATED METACOGNITION FROM GRADES 1 THROUGH 6⁶

GRADE	STUDENTS' ROLE	TEACHER'S ROLE
1	<ul style="list-style-type: none"> • Explicitly state their own views about the topic under consideration • Begin to consider the reasoning used to support their views • Begin to differentiate what they think from why they think it 	<ul style="list-style-type: none"> • Finds a variety of ways in which students can externally represent their thinking about the topic • Provides many experiences for students to begin to articulate the reasoning used to support ideas/beliefs
2	<ul style="list-style-type: none"> • Begin to address the necessity of understanding other (usually peer) positions before they can discuss or comment on those positions • Toward the end of the year, begin to recognize inconsistency in the thoughts of others but not necessarily in their own thinking 	<ul style="list-style-type: none"> • Continues to provide an educational environment in which students can safely express their thoughts without reproaches from others • Introduces concept of consistency of thinking • Models consistent and inconsistent thinking (students can readily point out when teacher is being inconsistent)
3	<ul style="list-style-type: none"> • Explore the idea that thoughts have consequences and that what one thinks may influence what one chooses to see • Begin to <i>differentiate understanding</i> what a peer is saying from <i>believing</i> what a peer is saying • Begin to comment on how their current ideas have changed from past ideas and to consider that current ideas may also need to be revised over time 	<ul style="list-style-type: none"> • Fosters metacognitive discourse among learners in order to illuminate students' internal representations • Provides lots of examples from their personal work (which is saved from year to year) of student ideas
4-6	<ul style="list-style-type: none"> • Begin to consider the implications and limitations of their personal thinking • Begin to look for ways of revising their personal thinking • Begin to evaluate their own/others' thinking in terms of intelligibility, plausibility, and fruitfulness of ideas • Continue to articulate criteria for acceptance of ideas (i.e., consistency and generalizability) of their thinking • Continue to employ physical representations of their thinking • Begin to employ analogies and metaphors, discuss their explicit use, and differentiate physical models from conceptual models • Articulate and defend ideas about "what learning should be like" 	<ul style="list-style-type: none"> • Provides historical examples of very important people changing their views and explanations over time • Begins to use students' external representations of their thinking as a way of evaluating their ideas/beliefs (in terms of intelligibility, plausibility, and fruitfulness) in order to (a) create, when necessary, dissatisfaction in the mind of the learner to facilitate conceptual exchange or (b) look for ways of promoting conceptual change in the mind of the learner